



PILOT SPECIFICATION FOR MOISTURE REDUCTION SCOPE# 17607-30137020-2019

**HISTORIC HOUSING UNITS
RANDOLPH AIR FORCE BASE, TEXAS**

PREPARED FOR:
RANDOLPH FAMILY HOUSING
205 NEW B STREET EAST
RANDOLPH AIR FORCE BASE, TEXAS 78148

PREPARED WITH THE ASSISTANCE OF:
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APRIL 2019

EXHIBIT

B to Knight Declaration

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1. SCOPE OF WORK

The following project specifications describe the guidance proposed to reduce the moisture/humidity within the subject housing units located at Randolph Air Force Base (AFB), Texas.

Contractors shall furnish all labor, materials, transportation and disposal services, permits, insurance, and equipment which is specified, shown, or reasonably implied for activities within the scope of work. The scope of work includes the following major tasks within the subject property:

1.1 GENERAL OVERVIEW OF SCOPE OF WORK

The Scope of Work includes work to three (3) types of units present at Randolph Family Housing. The size and general scopes are defined as the following:

Two-Story Duplex Units Scope

These historic units are two-story duplex style stucco exterior, barrel tile roofs, metal window frames, air-handlers on second floor, and at least two bathrooms/showers. The homes are elevated on a crawlspace. The following pilot scope of work should be performed:

- Inspect all gutters for proper operation and install downspout extensions to keep water away from foundation/crawlspace of building.
- Clean all debris from gutters and extend downspout from foundation as necessary.
- Inspect and clear any blockages/obstructions from crawlspace vents around each side of building.
- Install bathroom vent fans in ceiling above each bath/shower of unit. The bathroom vent fans shall have a humidity sensor and operate humidity on/humidity independent of light switch or other power to bathroom. Consult with a licensed electrician for wiring/connection options. Each bathroom vent fan shall be exhausted to the outside of home.
- Install pass-throughs above bedroom doors and evaluate option for susceptible closets or install additional returns in each room.
- In some homes the air handler is located on the second floor with air return for unit present at top of first floor landing. Consult with a qualified HVAC contractor to 1) install in-line dehumidification system at air-handler, 2) remove/seal existing air return, and 3) modify air return location to a central location at the second floor of the unit.
- If return is left in place, minimize flow to encourage air exchange upstairs and mastic the return to ensure proper seal.
- In some homes the air handler is located on the first floor with air return for unit present at bottom of unit. Consult with a qualified HVAC contractor to 1) install in-line dehumidification system independent of unit on second floor with intake located on second floor. Bypass vents will be placed in each bedroom with collection point located near intake.

- HVAC system and duct work will be cleaned to conform to NADCA standards as part of the project. This is to include replacement of vent covers and proper installation and sealing of vent covers, cleaning of blower motor, coil, and condenser.
- Resurface all internal fibrous duct liner using approved resurfacer.
- Inspect crawl space of home and seal all penetrations to include electrical, plumbing, HVAC, and other penetrations to the floor and wall cavities. Use steel wool and fire rated spray foam insulation to seal penetrations.
- Inspect and properly seal all plumbing access panels. Install $\frac{3}{4}$ " treated lumber to seal plumbing penetrations located on the 1st floor. Steel wool and fire rated spray foam may be used on 2nd floor to seal area. Clean any discoloration present on panel doors, primer and paint panel doors. Upon completion, install (2) - 2" T25 security type screws to secure panel doors. Note, it may be necessary to predrill a pilot hole as to avoid splitting door.
- Inspect all windows and clean caulking around windows. Replace where needed. Replace fall protection stickers on all 2nd floor windows. Stickers will be provided by Hunt.
- Inspect seals and functionality of all windows. Replace seals and balance as needed.
- Perform put back of building materials (plaster, drywall, paint, etc.)

Two-Story Single Family Units

These historic units are two-story single family homes with stucco exterior, barrel tile roofs, metal or wood window frames, air-handlers on first floor, and at least three bathrooms/showers. The homes are elevated on a crawlspace. The following pilot scope of work should be performed:

- Inspect all gutters for proper operation and install downspout extensions to keep water away from foundation/crawlspace of building.
- Clean all debris from gutters and extend downspout from foundation as necessary.
- Inspect and clear any blockages/obstructions from crawlspace vents around each side of building.
- Install bathroom vent fans in ceiling above each bath/shower of unit. The bathroom vent fans shall have a humidity sensor and operate humidity on/humidity independent of light switch or other power to bathroom. Consult with a licensed electrician for wiring/connection options. Each bathroom vent fan shall be exhausted to the outside of home.
- Install pass-throughs above bedroom doors and evaluate option for susceptible closets or install additional returns in each room.
- The air handler is located on the first floor with air return located at back of air handler in dining room or living room wall. Consult with a qualified HVAC contractor to 1) install in-line dehumidification system at air-handler, 2) HEPA Vacuum and wipe down the inside of the return box until clean. All exposed surfaces shall be wrapped in duct board. All seams and joints in the duct board shall be sealed in a manner as not to allow air flow from outside sources. And 3) add air return location to a central location at the second floor of the unit.
- HVAC system and duct work will be cleaned to conform to NADCA standards as part of the project. This is to include replacement and proper installation and sealing of vent covers, cleaning of blower motor, coil, and condenser.

- Resurface all internal fibrous duct liner using approved resurfacer.
- Inspect crawl space of home and seal all penetrations to include electrical, plumbing, HVAC, and other penetrations to the floor and wall cavities. Use steel wool and fire rated spray foam insulation to seal penetrations.
- Inspect and properly seal all plumbing access panels. Properly seal plumbing penetrations located on the 1st floor. Steel wool and fire rated spray foam may be used on 2nd floor to seal area. Clean any discoloration present on panel doors, primer and paint panel doors. Upon completion, install (2) - 2" T25 security type screws to secure panel doors. Note, it may be necessary to predrill a pilot hole as to avoid splitting door.
- Inspect all windows and clean caulking around windows. Replace where needed. Replace fall protection stickers on all 2nd floor windows. Stickers will be provided by Hunt.
- Perform put back of building materials (plaster, drywall, paint, etc.)

One-Story Single Family Units

These historic units are one-story single-family homes with stucco exterior, barrel tile roofs, metal or wood window frames, air-handlers in basement, and at least two bathrooms/showers. The homes are elevated on a crawlspace. The following pilot scope of work should be performed:

- Inspect all gutters for proper operation and install downspout extensions to keep water away from foundation/crawlspace of building.
- Clean all debris from gutters and extend downspout from foundation as necessary.
- Inspect and clear any blockages/obstructions from crawlspace vents around each side of building.
- Install bathroom vent fans in ceiling above each bath/shower of unit. The bathroom vent fans shall have a humidity sensor and operate humidity on/humidity independent of light switch or other power to bathroom. Consult with a licensed electrician for wiring/connection options. Each bathroom vent fan shall be exhausted to the outside of home.
- Install pass-throughs above bedroom doors and evaluate option for susceptible closets or install additional returns in each room.
- The air handler is located in the basement with air return located near unit at dining room wall near kitchen. Consult with a qualified HVAC contractor to 1) remove/seal existing air return, and 2) modify to install new air return to locations near bedrooms and bathrooms. (Two returns may be necessary due to layout of unit).
- HVAC system and duct work will be cleaned to conform to NADCA standards as part of the project. This is to include replacement of vent covers and proper installation and sealing of vent covers, cleaning of blower motor, coil, and condenser.
- Resurface all internal fibrous duct liner using approved resurfacer.
- Inspect crawl space of home and seal all penetrations to include electrical, plumbing, HVAC, and other penetrations to the floor and wall cavities. Use steel wool and fire rated spray foam insulation to seal penetrations.

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- Inspect outside wall of kitchen and remove abandoned range vent cover if applicable. Properly seal penetration by friction fitting 2" Styrofoam and caulking around edges. Float, texture, paint exterior to match existing finish.
 - Inspect and properly seal all plumbing access panels. Properly seal plumbing penetrations located on the 1st floor. Steel wool and fire rated spray foam may be used on 2nd floor to seal area. Clean any discoloration present on panel doors, primer and paint panel doors. Upon completion, install (2) - 2" T25 security type screws to secure panel doors. Note, it may be necessary to predrill a pilot hole as to avoid splitting door.
 - Inspect all windows and clean caulking around windows. Replace where needed.
 - Replace fall protection stickers on all 2nd floor windows. Stickers will be provided by Hunt.
 - Perform put back of building materials (plaster, drywall, paint, etc.)

GENERAL NOTES

***Prior to any building disturbance activities, consult with Owner to determine if any areas to be cut, removed or modified contain asbestos and/or lead-based paint. Only certified and licensed asbestos abatement workers are allowed to remove any asbestos containing materials (ACM). For any areas with lead-based paint (LBP), any contractors disturbing the painted components shall have current EPA renovate right (lead-safe training).**

It is possible that additional damaged areas may be encountered during the work process. Any additional areas encountered during the work will be brought to the attention and evaluated by the Owner's Representative. The Owner's Representative will describe the appropriate methods to be employed for any newly encountered damaged materials.

Following completion of activities, a verification will be conducted at each unit. This will include visual inspection and cleanliness evaluation (i.e., "white glove" test) to document areas are clean.

2. GENERAL PROVISIONS

2.1 HEALTH AND SAFETY

All work shall be performed in compliance with applicable regulatory standards including, but not limited to, OSHA 29 CFR 1910 Standards for General Industry and OSHA 29 CFR 1926 Standards for the Construction Industry. All provisions of this specification relating to health and safety of workers, the public, and protection of the environment are minimum standards. The contractor is responsible for determining whether any additional and/or more stringent protective measures are required by any local, state, or federal regulations, ordinances or guidelines. Failure on behalf of the contractor to comply with all applicable requirements does not relieve the contractor from any liability and/or requirements for performance of the work.

A. The following standards, regulations, and reference documents are incorporated herein by reference and made a part of this specification.

Code of Federal Regulations (CFR) Publications:

1. 29 CFR 1926.28 - Personal Protective Equipment
2. 29 CFR 1926.55 - Gases, Vapors, Fumes, Dusts and Mists
3. 29 CFR 1926.57 - Ventilation
4. 29 CFR 1926.59 - Hazard Communication
5. 29 CFR 1926.95 - Criteria for Personal Protective Equipment
6. 29 CFR 1926.96 - Occupational Foot Protection
7. 29 CFR 1926.100 - Head Protection
8. 29 CFR 1926.101 - Hearing Protection
9. 29 CFR 1926.102 - Eye and Face Protection
10. 29 CFR 1926.103 - Respiratory Protection
11. 29 CFR 1926.104 - Safety Belts, Lifelines, and Lanyards
12. 29 CFR 1926.200 - Signs, Signals and Barricades
13. 29 CFR 1926.300 - General Requirements

14. 29 CFR 1926.301 - Hand Tools

15. 29 CFR 1926.302 - Power Operated Hand Tools

2.2 UTILITIES

The Owner shall provide water and electric supply from existing sources. The use of the structure's utilities will be coordinated through the Owner.

2.3 LICENSES, FEES, & PERMITS

The Contractor will pay all licensing fees, royalties, and other costs necessary for the use of any intellectual property including, but not limited to: copyrighted or patented product, design, invention, or process in the performance of the work specified in this Section. The Contractor will be solely responsible for costs, damages, or losses resulting from any infringement of these patent rights or copyrights. The Contractor will hold the Owner harmless from any costs, damages, and losses resulting from any infringement of these patent rights or copyrights including reasonable attorney's fees. If the Contract Specification requests the use of any product, design, invention, or process that requires a licensing, patent, or royalty fee for use in the performance of the job, the Contractor will be responsible for the fee or royalty fee and shall disclose the existence of such obligations.

2.4 PROJECT COORDINATION WHEN CONTRACTOR USED

- A. Owner Disruption:** The Owner may occupy portions of the subject site or conduct certain business operations in or around the subject site during the project. The contractor will coordinate work with the Owner and conduct activities so as to minimize disruption.
- B. Authority to Stop Work:** The Owner has the authority to stop the work at any time they determine that conditions are not within the specifications and applicable regulations. The stoppage of work will continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the Owner.
- C. Emergency Exits:** The Contractor will establish visible emergency and fire exits from the work area and all applicable OSHA regulations will be followed regarding fire protection, placement of fire extinguishers, types of fire extinguishers and use of flammable compounds within a restrictive environment.
- D. Injuries:** If an injury occurs, the Contractor will stop work until the injured person has been removed from the work area and proper medical attention has been obtained.

2.5 PRE-JOB SUBMITTALS FOR CONTRACTORS

A copy of submittals will be provided to the Owner prior to the work upon request.

2.6 POST-JOB SUBMITTALS

Upon completion of all work for each unit, Contractor shall submit the following documentation to the Owner for approval:

- A. **Daily Logs:** Copies of daily logs describing the work performed, methods used, workers and visitors on-site in each unit, any unusual activities, etc.
- B. **Repair Records:** Contractor will provide a written completion report for each unit stating the start/completion dates, describing the scope of work performed and methods used. The form of report to be used by Contractor shall be submitted to the Owner for approval prior to the start of work.

3. PRODUCTS

3.1 MATERIALS

All materials and equipment proposed to be used on this project will be subject for the acceptance of the Owner and compliance with Local, State, and Federal regulations and requirements. The list of required materials will include, but not necessarily be limited to, the following:

3.2 TOOLS AND EQUIPMENT

- A. Transportation Equipment:** Transportation equipment, as required, will be suitable for loading, temporary storage, transporting, and unloading waste. All over-the-road transportation equipment must carry any required appropriate transport licenses, signage, placards, and insurance as necessary.
- B. Other Tools and Equipment:** The Contractor will provide other suitable tools including, but not limited to: saws, brooms, and carts.
- C. GFCI:** The Contractor will provide ground fault circuit interrupters (GFCI) to protect all electrical cords and connections.
- D. Lighting:** Approved lighting equipment for use in the work area.
- E. Ladders and Scaffolding:** Scaffolding and Ladders, as required to accomplish specified work, shall meet all applicable Federal, State, and Local safety regulations and used in accordance with manufacturer's specifications.